

Measurement of High School Equivalency Credentials in Census Bureau Surveys
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Introduction

The Census Bureau has historically grouped high school diploma holders along with those who hold “high school equivalent” credentials. Among these is the credential earned through successfully passing the General Education Development (GED) test. Interest in identifying those with GEDs has recently increased, in part from debate within the academic and federal statistical communities about the inclusion of high school equivalency degrees in the calculations of high school graduation, and because of the increasing concern that equivalency degrees are not truly equivalent in terms of labor market value and as a basis for future educational attainment (Heckman and LaFontaine, 2010; Murnane, Willett, and Tyler, 2000; Clark and Jaeger, 2006; Michel and Roy, 2006; Boesel, Alsalam, and Smith, 1998; Cameron and Heckman, 1993). This paper outlines the ways that the Census Bureau captures persons with alternative high school credentials, provides estimates of prevalence based on these different methods, compares these estimates to administrative records, and reviews the Census Bureau studies on the relative reliability of survey items on high school credentials.

Background on GED Exams

The General Education Development (GED) test was developed in the 1940s to help military personnel and veterans earn a high school credential and enter the workforce. The exam was expanded to non-veterans starting in 1947, and has become an increasingly popular way for people to complete a high school education apart from the traditional coursework and graduation path (Cameron and Heckman, 1993). The popularity of the test increased sharply through the 1960’s and 1970’s, but has leveled over the past three decades to a count of about half a million exams successfully completed annually according to records from the GED Testing Service

(2010). More than 493,000 GEDs were awarded in 2008, which accounted for 12 percent of all high school credentials awarded that year (Heckman, Humphries, and Mader, 2010). Since 1943, more than 17 million people have earned a GED credential (GED Testing Service, 2010).

The GED Testing Service is responsible for developing the tests, but is not responsible for determining high school completion. People who successfully pass the battery of exams receive a GED credential, but it is up to the administrating jurisdiction (such as the state, correctional institution, military facility, or Veterans Affairs hospital) to determine the name of the credential. In the U.S., 63 percent of jurisdictions award a “Diploma”, while 31 percent award a “Certificate” and 6 percent award something else (GED Testing Service, 2010). States also control the eligibility requirements for taking the test, can increase the minimum passing requirements, and can vary the prerequisites for completing a high school credential.

Much of the appeal of the GED exam is the belief that it is the equivalent of a regular high school diploma. The GED Testing Service informs test takers that 98 percent of post-secondary institutions and 96 percent of companies accept the GED credential as a high school degree (GED Testing Service, 2010). The Census Bureau has historically treated GED holders as “high school equivalent” and currently publishes data from surveys such as the Current Population Survey (CPS), the Survey of Income and Program Participation (SIPP), and the American Community Survey (ACS) with high school diploma and GED completers grouped together. Although estimates of high school completion include GED holders, most Census Bureau surveys have begun to collect data on GEDs separately from diplomas to allow data users to look at and assess these different types of credentials.

How the Census Bureau Collects Data on High School Equivalency Degrees

The type of information that the Census Bureau collects about educational attainment and high school equivalency degrees has changed over time and varies by survey. This paper focuses on the information collected in the three main demographic surveys collected by the Census Bureau: The American Community Survey (ACS), the Survey of Income and Program Participation (SIPP) and the Current Population Survey (CPS). Table 1 summarizes the survey items and universes, and full details on each question are included in Appendix A.

ACS

The ACS is the most recently developed of the three surveys, reaching full implementation in 2006. Data from the ACS are nationally representative and are based on a sample of about 3 million addresses annually, which allows for estimates of population characteristics for detailed levels of geography throughout the U.S. The ACS is collected via multiple modes, including paper, computer assisted telephone interview (CATI) and computer assisted personal interview (CAPI). The universe for the ACS is the resident population of the United States, including both the household population and those residing in group quarters, such as correctional institutional, nursing homes, and college dormitories. The educational attainment item was revised in 2008 to collect more information about those who reported completing only a high school education. On the paper instrument under the heading of “high school graduate”, respondents are offered two response options: “regular high school diploma” or “GED or alternative credential.” In the CATI and CAPI instruments, the response categories for high school completion are similarly divided between graduate and GED or alternative credential. An additional follow-up question is directed to respondents who initially report completing 12th grade or completing 11th grade but who are not currently enrolled. These respondents are asked if they have a high school diploma or a GED or alternative credential, or no credential.

SIPP

The SIPP is a panel survey that has been collected by the U.S. Census Bureau since 1984. The survey is representative of the civilian noninstitutionalized population. Information on alternative high school credentials is collected in both the Core survey and in the Education and Training History Topical Module. In the two most recent panels (2004 and 2008), the Core educational attainment item includes two follow-ups on alternative credentials. Respondents who report educational attainment as “high school” received a follow-up about how the person earned that diploma (“graduating from high school” or “passing a GED exam (or other equivalent)”). Prior to 2004, only one follow-up was asked, which was included to capture respondents who should be classified as high school completers. This item is still included in the more recent panels and asks adults who report having less than a high school education if they have completed high school “by means of a GED or other equivalency test or program”.

GED status in the Core SIPP interview is fed through to the Education and Training History Topical Module, which is collected in Wave 2 of the SIPP interview. Respondents with more than a high school education are asked about whether high school was completed via graduation or through a GED or other exam. Combined with the GED items collected in the Core interview, the Wave 2 interview includes GED status for all adults age 15 and over, regardless of educational attainment level.

CPS

The CPS is a monthly survey that has been administered by the U.S. Census Bureau and the Bureau of Labor Statistics for more than 60 years. The survey is representative of the civilian noninstitutionalized population. Educational attainment information has been collected since

1947, although there have been considerable changes in the specific items. The current version of the alternative credential question has been asked in the Basic survey since 1998. Similar to the SIPP Core question, the CPS item is directed to respondents age 15 and over who report high school graduate as the highest level of educational attainment. These respondents are asked how the person got the high school diploma (graduated versus GED or other equivalent). The item is asked at the first interview, and for those who become a high school graduates at a later interview.

The CPS also collects information on alternative credentials in the October School Enrollment Supplement. Similar to SIPP procedures, GED information collected in the Basic survey is fed through to the supplement instrument and only those without responses are asked about alternative credentials. There are a series of three items, which are limited to respondents aged 15 to 29 who are not currently enrolled in elementary through high school. Respondents who have completed less than a high school education are asked if they had completed high school through an equivalency exam. A similar yes/no question is asked for respondents who were missing data from the Basic interview. Respondents who had completed at least a high school education were asked whether the high school diploma was obtained through high school graduation or through a GED or other equivalency.

Census Bureau Estimates of High School Equivalency Degrees

Table 2 displays information about GEDs and other alternative credentials collected in the ACS, SIPP, and CPS. To increase comparability across surveys, estimates are drawn from the 2008 versions of each survey.¹ However, differences by mode, universe, and question wording

¹The data are subject to error arising from a variety of sources, including sampling error, and nonsampling error. All comparative statements in this report have undergone

contribute to varying estimates of GED prevalence. Estimates may also differ due to timing of data collection, with CPS data collected in October of each year, SIPP collected over a four-month period (Wave 1 estimates September to December of 2008, Wave 2 from January to April of 2009), and ACS collected in a rolling sample through all 12 months of 2008 (see Scannello, 2007 for discussion of differences in estimates of educational attainment). See Appendix A for more information about question wording and response categories for each survey.

The first line of the table displays information from the 2008 ACS. In the overall population, 8.9 million adults age 18 and over had a GED or other high school equivalent credential. Of the total number of adults who had completed a terminal high school education, 13.5 percent completed high school via an alternative credential. The count of young adults (age 18-29) who had a GED was just over 2 million in 2008. The second line of the table shows these same estimates from the ACS, but excludes the group quarters population to increase comparability to the survey universe in the SIPP and CPS. This reduces the estimate to 8.3 million GEDs for all adults (13.1 percent of high school completers) and 1.8 million GEDs among young adults (13.6 percent of high school completers).

GED estimates from the 2008 SIPP Core are shown in the third row of Table 2. The SIPP estimated that about 9 million adults had a GED, which is about 600,000 more than the ACS household-based estimate. The percentage of adults who completed a terminal high school education via a GED was about also higher in the SIPP at 15.5 percent. The SIPP estimate of the count of young adults with a GED was 2.4 million, which was also higher than the estimates from the ACS.

statistical testing, and, unless otherwise noted, all comparisons are statistically significant at the 10 percent significance level.

The SIPP Topical Module GED item has a larger universe than the ACS or the SIPP Core because respondents with more than a high school education are included. In the 2008 Panel, an estimated 16.9 million adults had a GED (shown in the column “High School or More” in Table 2). The estimate of 9.7 million in the “High School Only” category removes respondents who have completed a GED and report attaining at least some college (including a vocational certificate). The difference between these counts is about 7.2 million, which is the estimate of the number of adults who completed a GED and also have some post-secondary education. The estimate of young adults who have a terminal GED is 2.7 million, which is higher than from the SIPP Core or ACS, and a higher proportion of all adult high school graduates completed via a GED (20.5 percent).

The remaining rows of the table show estimates from the CPS, including the Basic interview and the October School Enrollment Supplement. The CPS Basic data yield an estimate of 4.9 million adults with a GED or other equivalent. This represents 7 percent of those with a terminal high school education. This estimate is lower than those from the ACS or the SIPP. Furthermore, an estimated 1.2 million young adults have a GED in the CPS, which is lower than the ACS and only about half as high as the SIPP Core-based estimate.

The CPS School Enrollment Supplement includes GED questions for those with both less than and more than a high school education, which contributes to a higher estimate of GEDs for young adults. According to the 2008 data, 2.2 million young adults with a high school or more education had a GED. When the count is restricted to those with only a high school education, the estimate is 1.6 million. The estimate of the proportion of high school graduates who completed via a GED was about 10 percent in the School Enrollment Supplement.

The lower counts of GEDs in the CPS may be due in part to an instrument error with the programming software introduced in 2007. In the earlier version of the instrument, respondents who reported having a terminal high school education were asked about the type of credential at the first interview, or if there was a change in educational attainment at subsequent interviews. In the new version of the instrument, respondents were being reasked about GEDs periodically, even if there was no change in educational attainment. This change coincided with a trend where respondents who initially were classified as having a GED were being reclassified as regular high school graduates in later interviews, which contributed to a overall lower prevalence of GEDs. A Census Bureau investigation found that about 9 percent of high school completers had a GED in the pre-2007 instruments compared to about 7 percent of respondents in 2007 through 2009.² Thus, it is likely that the CPS Basic survey would produce as estimate of around 1.7 million if problems with the GED collection had not been present. This would also lead to an increase in the estimates from the CPS School Enrollment Supplement since respondents with information about GED completion in the CPS Basic survey were not re-asked about high school credential type, which would likely lead to an estimate of about 2.2 million, more in line with SIPP and ACS estimates.

Comparison to Administrative Records

The GED exam is developed and administered by the GED Testing Service, affiliated with the American Council on Education. The GED Testing Service keeps track of the number and characteristics of people who take and pass the exam in the U.S. and elsewhere, and report some of these data in annual statistical reports. These data on GED completers tell us how many people receive a GED each year, but don't directly tell us how many people there are in the

² For more information, see the memo “GED Data Collection in the Base CPS 2007 to Present” by Kurt Bauman and Julie Siebens, U.S. Census Bureau, April 14, 2010 (see Appendix B).

population who have ever completed a GED in the past. Mishel and Roy (2006) and the National Center for Education Statistics (NCES) (Chapman, Laird, and KewalRamani, 2010) developed an approach for using these reports to estimate how many young people in the civilian, noninstitutionalized population in a given age range had ever earned a GED by passing the GED exam. An updated version of this approach is used here.

In order to derive the number in the population with GED's, GED Testing Service data on people who passed the GED by age from 1978 forward were combined. For 18- through 24-year olds, this was done by adding the count of 18- through 24-year-olds who passed the exam in 2008 to counts of people who were ages 18–24 in 2008 and passed the exam in earlier years.³ In our calculations, we estimated the number of completers by single year of age by smoothing reports of completers by people given in age ranges, using a report of test passers by single year of age provided for 1999. In some years, the GED Testing Service reported only the age distribution of test takers, not test passers. In those years, we adjusted the age distribution to match the relative probability of passing by age from reports that provided age of both test takers and passers. The estimate we derived of people aged 18 to 24 in 2008 holding a GED was 1,636,000. Using this same basic approach, NCES estimated 1,622,000 for the same age group in the same year. We also used this approach to estimate that about 3,434,000 people aged 18 to 29 have a GED.

Figure 1 plots these annual estimates relative to the estimates derived from the CPS October School Enrollment. The figure also includes information about the version of the GED item included in the CPS. The supplement question from 1994 to 1999 asked all respondents the

³ The number of 18- through 24-year-olds who passed the exam in 2008 was added to the number of 17- through 23-year-olds who passed the exam in 2007. That sum was added to the number of 16- through 22-year-olds who passed the exam in 2006, the number of 15- through 21-year-olds who passed the exam in 2005, and so forth.

yes/no question “Did...complete high school by means of an equivalency test, such as the GED?” In 1998, the Basic interview item discussed above was added to the control card. Rather than a yes/no item, respondents with a terminal high school education were asked if they graduated from high school or earned a GED. Both versions of the GED item were asked until 2000, when the control card response was used as the GED value for respondents with a terminal high school education. A new set of items was included in the supplement to capture GED attainment differently depending on level of educational attainment. These items are then combined to create a single GED supplement variable.

When looking at the estimates from the original supplement item in 1994-1999, the estimates from this item are higher than the administrative-records based estimates. This is likely due to the high level of response variation associated with this item, as well as the complication of asking the same question across multiple levels of educational attainment (see the section on Reliability Studies for more information). With the modifications introduced in 2000, the CPS-based estimates become lower in general than the administrative data-based estimates from the GED Testing Service.⁴ The CPS-based estimates are lower in general than the administrative data-based estimates. This may be in part due to the CPS universe restriction of civilian noninstitutionalized population. Beginning in 2007, the first year of the instrument problems discussed above, the CPS estimate fell by about 300,000 to 400,000 from the level in 2006. If the data problem is the explanation for the lower numbers in 2007-2009, then one could expect the estimate to rise to be closer to the administrative estimate by 2012.

Reliability Studies

SIPP

⁴ The estimated number of GED holders in the 2001 CPS was not statistically different from the GED Testing Service estimate.

The Survey of Income and Program Participation Reinterview Program analyzes response variance for specific survey items in the SIPP. Reinterview studies on GED completion were included in the 2001 and 2004 SIPP panels.⁵ In each panel, reinterviews were completed for Wave 2 beginning about one week after the original interview and were conducted by Senior Field Representatives primarily via telephone. The reinterview studies used the same methodology in each panel, but tested different versions of the GED item in the 2001 and 2004 panels.

As discussed above, the 2001 Core item was a yes/no question asked of those with less than a high school education about whether they had completed high school via a GED or other equivalent. The main purpose of this item was to classify the respondent's educational attainment appropriately, not to capture GED prevalence. The reinterview study revealed some reliability problems with this item. The index of inconsistency (a measure of response variance) fell into the "very problematic" category.

Comparisons by sex showed that both men and women reported with a high level of response variance. The analyses also revealed that African-American respondents were more likely to provide inconsistent responses compared to other races, and that younger people were more likely to have unreliable answers compared to those age 50 and over. Apart from the GED analysis, the 2001 reinterview study also addressed other items on educational attainment. The educational attainment item had a moderate level of response variance, while the year of high school diploma receipt had a low level of response variance.

⁵ For more information, see "Response Variance in Wave 2 of the 2004 Survey of Income and Program Participation" and "Response Variance in Wave 2 of the 2001 Survey of Income and Program Participation", except no idea how to cite these since they don't appear to have been released.

The 2004 panel included the 2001 item in order to capture GED completion for those with less than a high school education. However, the new GED item was added to capture the type of credential held by people who had completed high school. The reinterview study revealed a lower degree of response variance for this item compared to the follow-up directed at those with less than a high school education. The index of inconsistency fell into the moderate category, which was deemed “not that problematic” in the final report.⁶

The 2004 study included an analysis of GED response variance by race, age, and educational attainment. All three of these characteristics were associated with response variance. Race was found to be one of the stronger predictors of inconsistent reporting of GEDs. The analysis revealed that non-Whites were about 3 times more likely to give inconsistent responses compared to White respondents. Age was also significantly correlated with reliability of GED responses. Compared to adults age 15-54, respondents age 55 and over were about two and a half times more likely to provide inconsistent responses. Respondents with a high school diploma were also more likely to give inconsistent responses compared to those with higher levels of education.

ACS

The 2006 American Community Survey Content Test was conducted to test new and revised content to be implemented in the 2008 ACS. Respondents were interviewed using either the existing or the test content, and then follow-up to address the consistency of reporting. A modified educational attainment item was included in the test. One part of the revision was to introduce a response category for holding a GED or other alternative credential. Respondents who completed high school were categorized as having either a regular high school diploma, or a

⁶ Page 9 of the 2004 memo.

GED or alternative credential. For each of these categories, the level of response variance fell into the moderate range (Crissey, Bauman, and Peterson, 2007).

CPS High School Validation Study

In 2008, the CPS October survey also included a High School Completion Validation Supplement. This supplement was proposed and supported by the National Center for Education Statistics (NCES) to assess reporting error in the CPS educational attainment data. The supplement targeted persons age 18 to 24 who were not currently enrolled in high school. The 2008 supplement was a survey that asked respondents about the types of high school credentials that were earned, including diplomas, GED, and other alternative credentials. Respondents were also asked for information about the institutions that awarded these credentials. Later phases of the study will follow up with these institutions to confirm whether these credentials were accurately reported.

Conclusions

The U.S. Census Bureau collects information on high school equivalency credentials in each of the three main demographic surveys. The questions have varied over time, and there is still considerable differences in question universe, item wording, and response categories across each survey. The highest estimates come from the SIPP, which has the widest question universe for capturing GEDs. In the Core, respondents who report an education level of high school graduate or less are asked about GEDs, while the Topical Module captures high school credential type for those with at least some college attainment. The ACS household population estimates are lower, which may be in part due to the universe restriction of 11th-12th grade in the CATI/CAPI mode of interview. GED estimates from the CPS were lower than SIPP or ACS.

This could be in part due to the instrument error, but Basic CPS estimates are also based on the most restrictive universe of only high school graduates.

Despite similar universes in the SIPP Topical Module and the CPS School Enrollment Supplement, the estimates from these two sources do not align. The estimate from the SIPP Topical Module was about 70 percent higher than the estimate from the CPS School Enrollment Supplement, while the estimate generated from the GED Testing Service administrative records fell between these two survey-based estimates. As with the CPS Basic estimate, some of this difference may be due to the instrument error since respondents who had been asked about credential type in the Basic interview were not re-asked as part of the Supplement interview. In contrast, the SIPP data may err in the direction of overestimating GEDs. Given the known response variation issues with capturing GEDs, having a larger universe of respondents and asking multiple times over a panel survey may lead to more false negatives. Despite the difference in estimates, data from both the SIPP Topical Module and the CPS School Enrollment show a similar magnitude in the share of GEDs held by those with more than a high school education. About 30% of the GED holders in the 18-29 age group have completed at least some college. This suggests that the ACS, SIPP Core, and CPS Basic all underestimate the prevalence of high school equivalency degrees.

The way that alternative high school credentials are captured has a large influence on the estimates of how many people hold these types of credentials. The estimates from the ACS, SIPP, and CPS vary in part due to differences in item universes, as well as differences in mode of collection and survey universe. The reliability studies suggest that the current versions of the GED items in the ACS and SIPP capture alternative credentials with an acceptable level of response variance. Furthermore, the analyses between the GED Testing Service and the CPS

School Enrollment Supplement display how the current version of the GED items are consistent with administrative records based data.

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APPENDIX A. Question Wording for Surveys

American Community Survey (2008 Version)

Paper

11 What is the highest degree or level of school this person has **COMPLETED**? Mark (X) ONE box. If currently enrolled, mark the previous grade or highest degree received.

NO SCHOOLING COMPLETED

No schooling completed

NURSERY OR PRESCHOOL THROUGH GRADE 12

Nursery school

Kindergarten

Grade 1 through 11 – *Specify grade 1 – 11*

12th grade – **NO DIPLOMA**

HIGH SCHOOL GRADUATE

Regular high school diploma

GED or alternative credential

COLLEGE OR SOME COLLEGE

Some college credit, but less than 1 year of college credit

1 or more years of college credit, no degree

Associate's degree (for example: AA, AS)

Bachelor's degree (for example: BA, BS)

AFTER BACHELOR'S DEGREE

Master's degree (for example: MA, MS, MEng, MEd, MSW, MBA)

Professional degree beyond a bachelor's degree (for example: MD, DDS, DVM, LLB, JD)

Doctorate degree (for example: PhD, EdD)

CATI/CAPI

SCHL

What is the highest degree or level of school (<Name> has/ you have) COMPLETED?		
<input type="radio"/> 51. No schooling completed <input type="radio"/> 52. Nursery school <input type="radio"/> 53. Kindergarten <input type="radio"/> 54. Grade 1 <input type="radio"/> 55. Grade 2 <input type="radio"/> 56. Grade 3 <input type="radio"/> 57. Grade 4 <input type="radio"/> 58. Grade 5 <input type="radio"/> 59. Grade 6 <input type="radio"/> 60. Grade 7	<input type="radio"/> 61. Grade 8 <input type="radio"/> 62. Grade 9 <input type="radio"/> 63. Grade 10 <input type="radio"/> 64. Grade 11 <input type="radio"/> 65. Grade 12, no diploma <input type="radio"/> 66. Regular high school diploma <input type="radio"/> 67. GED or alternative credential <input type="radio"/> 68. Some college, no degree <input type="radio"/> 69. Associate's degree (for example: AA, AS)	<input type="radio"/> 70. Bachelor's degree (for example: BA, BS) <input type="radio"/> 71. Master's degree (for example: MA, MS, MEng, MEd, MSW, MBA) <input type="radio"/> 72. Professional degree beyond a bachelor's degree (for example: MD, DDS, DVM, LLB, JD) <input type="radio"/> 73. Doctorate degree (for example: PhD, EdD) <input type="radio"/> 74. Vocational or technical license <DO NOT READ>
Level Completed		

SCHL1

Did (you/<NAME>) receive a high school diploma, a GED or alternative credential?
<input type="radio"/> 1. Regular high school diploma <input type="radio"/> 2. GED or alternative credential <input type="radio"/> 3. No diploma or GED
High school credentials

SCHL1 - High School Credentials

This question is asked only if the respondent says that they finished 12th grade (SCHL or SCHLVOC=65, 66) or that they completed 11th grade and are not currently enrolled in school (SCHL or SCHLVOC= 64 and SCHA=no, don't know or refused). This question serves as a double check on what completed 12th grade means. The instrument will not bring up this question if the respondent indicates that he/she received a GED at the educational attainment question (SCHL or SCHLVOC=67)

Survey of Income and Program Participation (2008 Panel)

*Core*⁷

EDUCB

Universe: Less than a high school education.

Mark One Only	EDUCB
<pre>[if FIRST_TIME eq <0>][fill C_HAVHAS] [fill TEMPNAME] completed high school by means of a GED or other equivalency test or program? [else](How about/And) [fill TEMPNAME]...? ([fill C_HAVHAS] [fill TEMPNAME] completed high school by means of a GED or other equivalency test or program?)[endif] (1) Yes (2) No @</pre>	

EDUCB2

Universe: Highest educational attainment level is high school graduate.

Mark One Only	EDUCB2
<pre>ASK OR VERIFY: [if FIRST_TIME eq <0>]Did [fill TEMPNAME] get [fill HISHER] high school diploma by graduating from high school, or by passing a GED exam (or other equivalent)? [else](How about/And) [fill TEMPNAME]...? (Did [fill TEMPNAME] get [fill HISHER] high school diploma by graduating from high school, or by passing a GED exam (or other equivalent?)) [endif] (1) Graduated from high school (2) GED or other test @</pre>	

Topical Module

GED_B

Universe: High school or more education who did not answer the GED questions in the Core.

Mark One Only	GED_B
<pre>Did [fill TEMPNAME] get [fill HISHER] high school diploma by graduating from high school, or did [fill HESHE] get it by passing a GED exam (or other equivalent)? (1) Graduation from high school (2) GED exam or other equivalent @</pre>	

⁷ Prior to the 2004 Panel, the Core instrument included a different set of response categories for EDUC and included only EDUCB as a GED follow-up.

Current Population Survey (2008 Version)

Basic

DIPGED

Universe: Highest educational attainment level is high school graduate.

People can get a High School diploma in a variety of ways, such as graduating from High School or by getting a GED or other equivalent.

How did Maureen Griffin get her High School diploma?

-
- 1. Graduation from High School
 - 2. GED or other equivalent

October School Enrollment Supplement

GED1

Universe: High school or more education who did not answer the GED questions in the Basic survey.

People can get their high school diploma in a variety of ways, such as graduation from high school or by getting a GED or other equivalent. How did (name/you) get (your/his/her) high school diploma?

<1> Graduation or from high school

<2> GED or other equivalent

GED2

Universe: Less than a high school education.

Earlier you said that the highest level (name/you) had completed was [EDUCA
VALUE]. Did (name/you) complete high school by getting a GED or other
equivalent?

<1> Yes

<2> No

GED3

Universe: Educational attainment missing.

Earlier you were unable to tell us the highest level of education (name/you) had
completed. Did (name/you) complete high school by getting a GED or other
equivalent?

<1> Yes

<2> No

APPENDIX B. Memo on GED Data Collection in Basic CPS 2007 to Present

April 14, 2010

Subject: GED data collection in Base CPS 2007 to present

Recently a user called about an issue with the basic CPS DIPGED question. This is the follow-up question for individuals who report an education level of high school graduate (entry of 39) in the EDUCA item. This item asks whether such individuals have received a diploma or a GED certificate for high school graduation. What he saw was that a large number of individuals in one person households were changing from being a GED recipient to a diploma recipient during their time in sample. This was even true where this item was not allocated. Greg Weyland, Kurt Bauman and Julie Siebens researched this issue.

Review of the situation revealed that the BLAISE instrument was reasking the DIPGED item in MIS 5, or the February, July and October updates, even if the baseline EDUCA information was constant. This is different than the situation in the previous (CASES) version of the instrument where the DIPGED item was not reasked when the underlying EDUCA item was unchanged. While we may never know the reason for such a shift in the data, the nature of these changes is not thought to be “real,” but rather a function of the interviewing process that is causing spurious change.

The extent of the change is evident from the table below. In the middle column is the percent of high school graduates (diploma or equivalent) who say they received a GED or equivalent rather than a regular high school diploma. In 2004 to 2006, before the introduction of the Blaise instrument, the percentage saying they received a GED was around 9 percent. After the new instrument began to be used in 2007, the percentage dropped to around 7 percent. The column showing responses by month-in-sample 1 cases is more variable over time, since it is based on fewer cases (1 of 8), but there does not seem to be a drop off in the percent reporting a GED. This is consistent with the idea that re-asking the question on GED recipiency is causing this problem.

Percent of Adult Civilian High School Graduates Reporting GED Recipiency		
	All respondents	MIS 1 respondents
2009	6.7%	9.9%
2008	7.0%	10.2%
2007	7.4%	9.3%
2006	9.1%	9.6%
2005	9.2%	9.1%
2004	9.1%	10.0%

Source: CPS public use files.

GED Status of High School Graduates from MIS 1 Matched to Their MIS 5 report of GED Status the Following Year			
First year report	Following year report		
	2009		
2008	HS Grad	GED/eqv	
High School Graduate	2337	43	
GED or Equivalent	149	104	
	2008		
2007	HS Grad	GED/eqv	
High School Graduate	2390	56	
GED or Equivalent	134	120	
	2007		
2006	HS Grad	GED/eqv	
High School Graduate	2356	68	
GED or Equivalent	135	126	
	2006		
2005	HS Grad	GED/eqv	
High School Graduate	2691	6	
GED or Equivalent	4	249	
	2005		
2004	HS Grad	GED/eqv	
High School Graduate	2639	6	
GED or Equivalent	2	278	

Source: CPS public use files.

The second shows what happened to cases where education was re-asked before and after the Blaise transition. There are people who were first interviewed in October of one year, matched to their responses one year later when they were month-in-sample 5. In 2004-2005 and again in 2005-2006, when the old instrument was in use both years, there is very little change in response, as illustrated in the low number of cases outside the first and fourth quadrants of the table. Beginning in 2006-2007, many more people changed their answer between one year and the next. Further, the lower left cell (moving from GED to High School Graduate) predominates. The process of re-asking seems to be systematically reducing the number of people recorded as having a GED.

This reasking of the EDUCA follow-up items was not just occurring for the DIPGED item, but for all six follow-up items. These items have the following instrument names and edited variable names respectively:

EDUCA4 - PEDIPGED
EDUCA5 - PEHGCOMP
EDUCA6 - PECYC
EDUCA7 - PEGRCOMP
EDUCA8 - PEGR6COR
EDUCA9 - PEM123

Like PEDIPGED, PEHGCOMP and PEM123 are very unlikely to change after they have been initially reported. The other items (PECYC, PEGRCOMP and PEGR6COR) can change as people continue their education. HHES will be looking into whether PEHGCOMP and PEM123 also show signs for spurious differences when the items are reasked when the updates occur. It is likely we will recommend the same course of action for all 3 variable describing completed education - PEDIPGED, PEHGCOMP and PEM123.

At this point in time, the most likely course of action will be to revert to the CASES procedure where the follow-up items are not reasked at the time of updates if the baseline EDUCA information remains constant. The first obvious time to make this change is with the October 2010 instrument. If not, then January 2011 is the next window of opportunity for such a revision.

Table 1. GED and Other Alternative High School Credential Information Collected in U.S. Census Bureau Surveys

Survey	Mode	Survey Universe	Item Universe	Question text	Years Available
American Community Survey (ACS)	Mail, CATI/CAPI	Resident population, including household and group quarters populations.	Persons with a terminal high school education	Select either "Regular high school diploma" or "GED or alternative credential" under heading of "high school graduate."	2008 to present
Survey of Income and Program Participation (SIPP) Core	CATI/CAPI	Civilian noninstitutionalized population	Persons who have completed a terminal high school education	Recode from two items: a) GED versus no credential for people with less than high school; b) high school diploma or GED for those who completed high school.	2004 and 2008 Panels
Survey of Income and Program Participation (SIPP) Topical Module	CATI/CAPI	Civilian noninstitutionalized population	Adults age 18 and over with at least a high school education	Was high school diploma from graduating from high school or passing a GED exam (or other equivalent)?	Education and Training History Topical Module asked once per panel since 1996
Current Population Survey (CPS) Basic	CATI/CAPI	Civilian noninstitutionalized population	Persons age 15 and over who have completed only a high school education	How did the person get the high school diploma? (Graduated, or GED or other equivalent)	1997 to present
Current Population Survey (CPS) School Enrollment Supplement	CATI/CAPI	Civilian noninstitutionalized population	Persons ages 15 to 29 who are not currently enrolled in elementary to high school	Series of questions depending on education level. High school credential holders were asked if it was by graduation or by GED or other equivalent. Those with less than a high school education or who didn't know the attainment, the question was if high school was completed by getting a GED or other equivalent.	Some version of the question has been included in October supplement from 1988 to present

Table 2. Comparison of Estimates of GED and Other Alternative High School Credentials in U.S. Census Bureau Surveys: 2008
 (Numbers in thousands, percents)

	Age 18 and Over			Age 18 to 29		
	High School Only	High School or More	Percent of High School Completers	High School Only	High School or More	Percent of High School Completers
ACS (Margin of error)	8,914 (53)	NA	13.5% (0.1)	2,044 (30)	NA	14.0% (0.2)
ACS, household only (Margin of error)	8,319 (51)	NA	13.1% (0.1)	1,834 (30)	NA	13.6% (0.2)
SIPP Core, Wave 1 (Sept-Dec 2008) (Margin of error)	8,955 (293)	NA	15.5% (0.5)	2,400 (154)	NA	17.8% (1.0)
SIPP TM, Wave 2 (Jan-Apr 2009) (Margin of error)	9,669 (331)	16,886 (432)	16.7% (0.5)	2,724 (178)	3,882 (212)	20.5% (1.2)
CPS Basic (October) (Margin of error)	4,938 (273)	NA	7.0% (0.4)	1,186 (134)	NA	7.9% (0.9)
CPS October Supplement (Margin of error)	NA	NA	NA	1,608 (95)	2,221 (111)	9.9% (0.6)
GED Testing Service Estimate (Margin of error)	NA	NA	NA	NA	3,434 (NA)	NA

Source: U.S. Census Bureau, American Community Survey, 2008; Survey of Income and Program Participation, 2008 Panel; Current Population Survey, October 2008, GED Testing Service *Who Passed the GED Tests?* (various years), Census Bureau calculations.

NA = Not availableFor information on the sample design, confidentiality protection, sampling error, and nonsampling error of the ACS, see the Accuracy of the Data found at: www.census.gov/acs/www//data_documentation/documentation_main/; for information on the sample design, confidentiality protection, sampling error, and nonsampling error of the SIPP, see "Source and Accuracy Statement" in the technical documents found at: <http://www.census.gov/apsd/techdoc/sipp/sipp.html>; information information on the sample design, confidentiality protection, sampling error, and nonsampling error of the CPS data, see "Source and Accuracy" in the technical documents found at: <http://www.census.gov/apsd/techdoc/cps/cps-main.html>

Figure 1: Estimated Number of People Aged 18 to 24 Who Hold a GED Credential: CPS to GED Testing Service

